

IN THE UNITED STATES PATENT OFFICE

APPLICANT:

JOSEF-WALTER STAWITZ ET AL.

SERIAL NO.:

10/009,749

FILED:

December 5 May 12, 2001

TITLE:

Use of Cu-Phthalocyanine Sulfonamides as a dye for

write-once optical data storage means

DECLARATION

RECEIVED MAR 0 2 2004

I, JOSEF W. Stawitz, declare:

that I am a German citizen resident at Am Hagen, 50168 Odenthal, Germany;

that I am a chemist having graduated with a degree of Doctor rer. nat. from the University of Würzburg, Germany in 1978;

that I have since been concerned with the preparation of organic dyestuffs;

that I am one of the joint inventors of US Patent Application Serial No. 10/009 749 filed on May 12, 2001;

that I have read the Office Action of August 18, 2003 and the references cited therein;

that the following dyestuff mixtures were tested under my supervision.

I.* Dye of the formula

$$\begin{array}{c} \text{Cu - Pc} \\ \hline \\ \text{(SO}_2\text{NH-CH}_2\text{CH}_2\text{CH}_2\text{N} \\ \hline \\ \text{(SO}_3\text{H)}_{\sim~0.3} \end{array} \\ \begin{array}{c} \text{CH}_3 \\ \text{CH}_3 \\ \end{array} \right)_{\sim~3.7}$$

according to U.S-Patent Application Serial No. 10/009749, similar to Exp.1 (present invention).

II.* Dye of the formula

$$(SO_2NH-CH_2CH_2-OH) \sim 3.7$$

 $(SO_3H) \sim 0.3$

according to EP-A-519 395, exp. 71 (prior art).

III. Dye of the formula

Si
$$(OH)_2$$
 Pc $(SO_2NH-CH_2CH_2CH_2-N CH_3)_{\sim 4}$

analog to JP-A-63-307987 exp. 1 and 8h or analog to US-A-5,424,171 (see cpd of claim 1).

* the preparation of the compounds I and II was made on the basis of the same sulfochlorinated Cu - Pc.

Tests

The following tests were made in order to have evidences whether or not applicability of the dye by using the spin coating technique is possible. For this, solution of the dyestuffs I, II and III respectively in most used solvents for spin coating, were made.

Such obtained solutions were given to a filter paper to see the chromatographic behavior. The respective filter papers are attached to this declaration.

A (present invention): cpd I (5% by weight) was dissolved in tetrafluoro-

propanol. The product was completely dissolved.

B (prior art): cpd II (5% by weight) was tried to be dissolved in

tetrafluoropropanol. The product was not dissolved

completely.

C (prior art): cpd III (5% by weight) was tried to be dissolved in

tetrafluoropropanol. The product could not be

completely dissolved.

D (present invention): cpd I (10% by weight) was dissolved in benzyl alcohol.

The product was completely dissolved.

E (prior art): cpd III (10% by weight) was tried to be dissolved in

benzyl alcohol. The product was not dissolved

completely.

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Result

As can be seen from the attached card (respective filter paper are mounted thereon).

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The prior art cpd I shows a substantially better solubility in the most common

solvents used for spin coating than the prior art dyestuffs II and III.

Conclusion

it was quite unexpected that the dye! according to the present invention exhibits a

better solubility and therefore a better applicability with respect to spin coating

technique than the prior art dyes II and III respectively.

The undersigning declarant declares further that all statements made herein of his

own knowledge are true and that all statements made on information and belief are

believed to be true; and further that these statements were made with the knowledge

that willful false statements and the like so made are punishable by fine or

imprisonment, or both, under Section 1001 of Title 18 of the United States Code and

that such willful false statements may jeopardize the validity of the application or

any patent issuing thereon.

Date:

Signature:

2004-02-09

Josef W. Stawitz

Josef-Walter Hand